

# Spanning tree with degree constraints

Solve the following optimization problem

Find the spanning tree with a constraint on the degree of each node

$$\min \sum_{i,j} U_{i,j} D_{i,j}$$

$$\forall i \quad G_i - L_i = \sum_j flow_{i,j}$$

$$flow_{i,j} \leq U_{i,j} M$$

$$\sum_c U_{i,c} + U_{c,i} \leq N_{degree}$$

